

USER MANUAL

DIR-457/457U

VERSION 1.0



Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.0	January 26, 2010	First Draft

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Package Contents

D-Link DIR-457/DIR-457U	
Battery	
Power Adapter	
USB Cable	
Travel Case	

Note: Using a power supply with a different voltage rating than the one included with the DIR-457/DIR-457U will cause damage and void the warranty for this product.

System Requirements

Network Requirements	<ul style="list-style-type: none">• IEEE 802.11g/b wireless clients• 3G SIM card for 3G Wireless Internet
System Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Operating System: Mac OS X 10.4, 10.5, 10.6• CPU: PowerPC G3 processor or higher• RAM: 256 MB• Hard Disk: 100 MB• USB Port: 2.0 Interface• MicroSD card

Features

- **Wireless Access Point** - The DIR-457/DIR-457U provides up to 54 Mbps* wireless connection with other 802.11g wireless clients.
- **Compatible with 802.11b Devices** - The DIR-457/DIR-457U is still fully compatible with the IEEE 802.11g standard, so it can connect with existing 802.11g or 802.11b devices.
- **3G Internet Connection Support** - HSDPA/HSUPA modem built-in to access 3G Internet Services. Download throughput up to 3.6/7.2Mbps, upload up to 384Kbps/5.76Mbps.
- **SMS Support** - SMS stored in SIM card (not included), SMS management, SMS notification.
- **VPN Support** - Passthrough support for PPTP, L2TP and IPSec.
- **Advanced Network Filter and Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
 - **MAC Address Filtering** - Easily applied content filtering based on MAC Address.
 - **Firewall** - Configurable options used to prevent common methods of attack from the WAN.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface for 3G Internet and Wireless LAN.

* Maximum wireless signal rate derived from IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

Hardware Overview

Connections

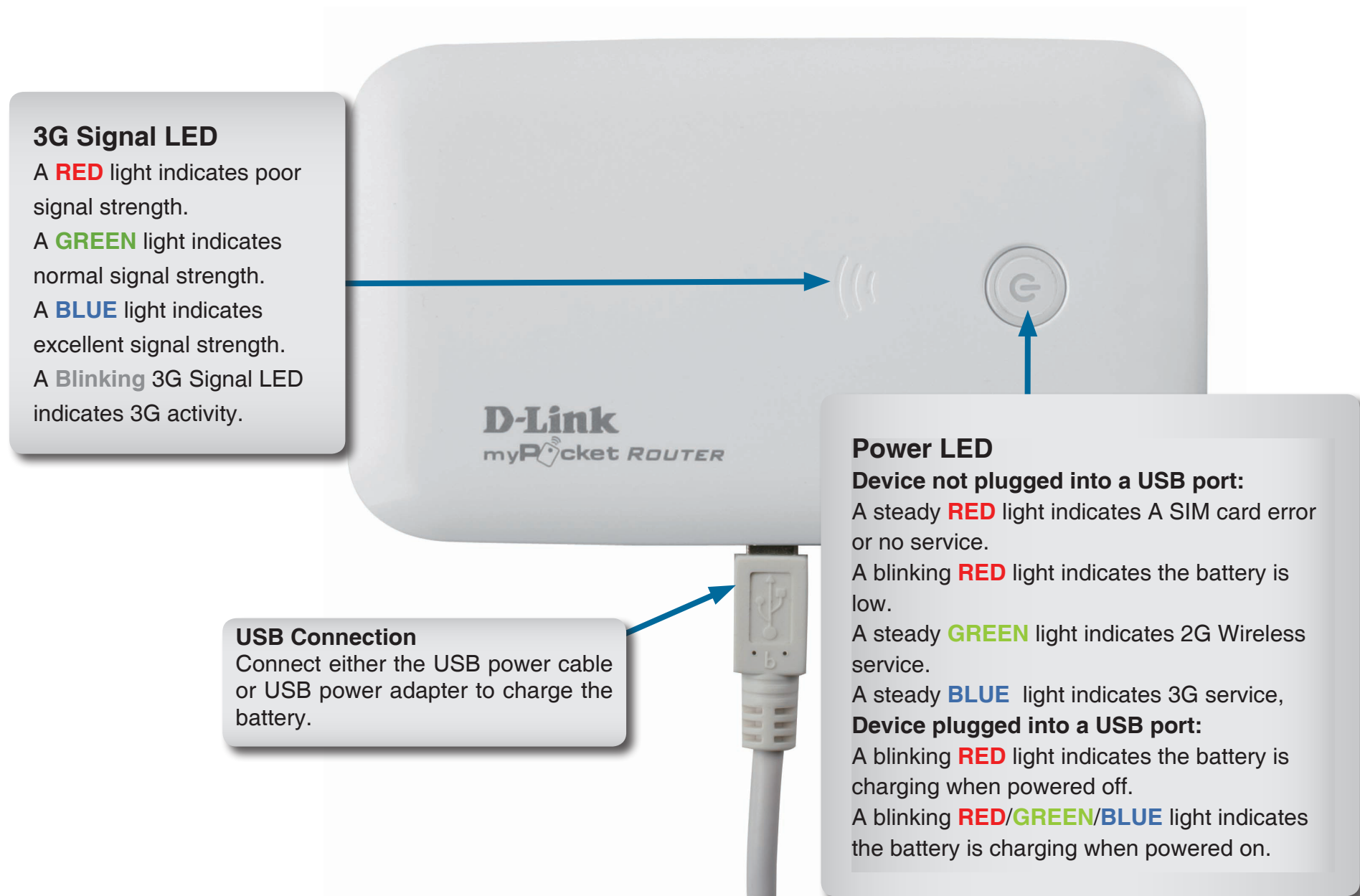


Power Receptor

USB receptor for the supplied power adapter and power cable.

Hardware Overview

Top View



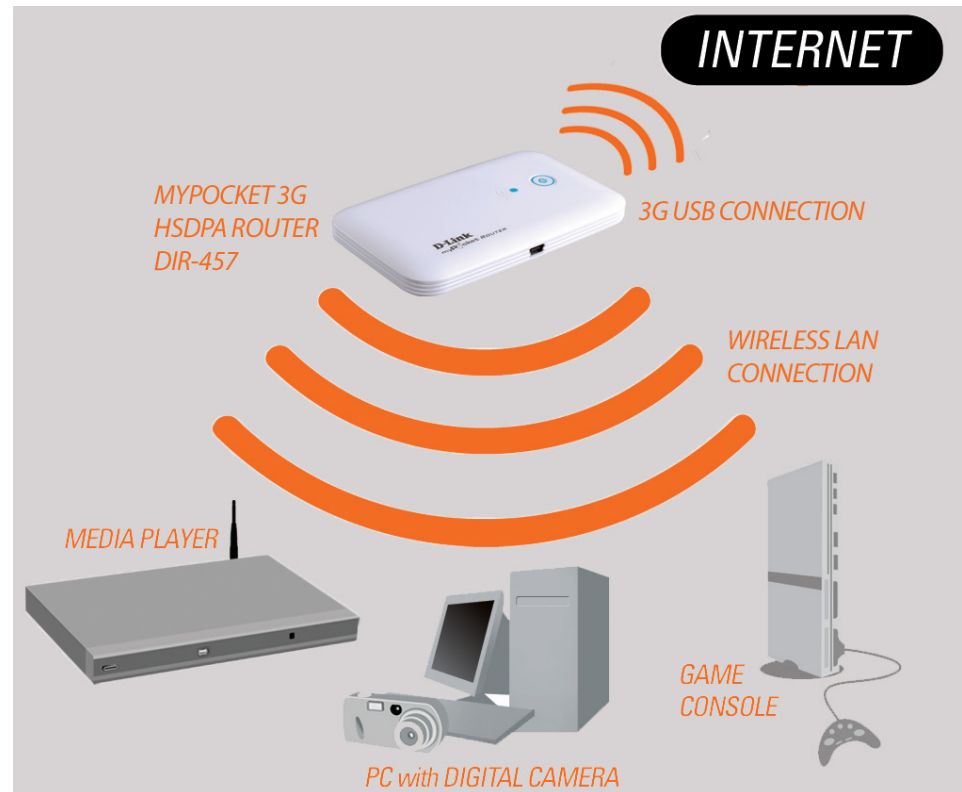
Hardware Overview

Switching Between 3G Modem Mode and Wi-Fi Router Mode

The DIR-457/DIR-457U features a hardware switch that enables users to switch between 3G Modem mode and Wi-Fi Router mode.

When the DIR-457/DIR-457U is in 3G modem mode, the device connected via the included USB cable maintains a direct 3G Internet connection. Use the Connection Manager to configure the 3G connection sharing for additional wireless devices when the DIR-457/DIR-457U is changed to Wi-Fi Router mode.

In Wi-Fi Router mode, the DIR-457/DIR-457U can share the 3G Internet connection with multiple Wi-Fi clients. Use myPocket to connect notebooks, game consoles, smart phones and other wireless clients.



Battery Facts

- It usually takes a minimum of 3 hours to fully charge the battery.
- Battery power lasts up to 4 hours in standby status.
- Battery life depends on network, signal strength, temperature, features, and accessories.
- New batteries or batteries not used for an extended period may take longer to fully charge.
- Always charge the battery at room temperature.
- The battery may perform best after several full cycles of charging and discharging.
- Store the battery uncharged in a cool, dark, dry place.
- Never expose batteries to temperatures below -10°C (14°F) or above 45°C (113°F).
- Leaving the battery in a hot vehicle may degrade long-term performance of Li-Ion batteries..
- It is normal for batteries to gradually wear down and require longer charging times.

Installation

When using the DIR-457/DIR-457U in Wi-Fi router mode, placement of the device is very important. Do not place the device in an enclosed area such as a closet, cabinet, or in the attic or garage. Please install the device considering the following points:

The D-Link DIR-457/DIR-457U in Wi-Fi router mode lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

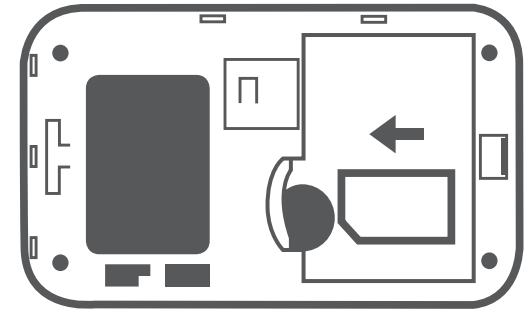
1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building Materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.
5. If you are using 2.4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

Product Setup

Hardware Setup

Installing the SIM Card

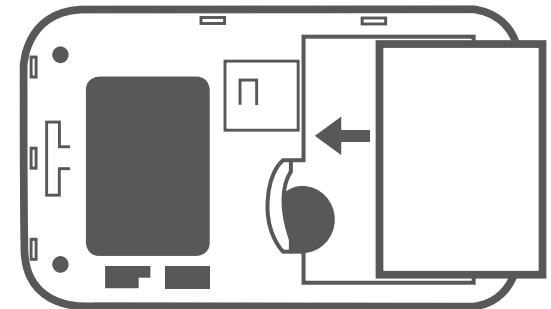
Open the SIM card and battery compartment, located on the bottom of the device. Insert the SIM card by lining up the contact points on the SIM card with the contact points in the SIM card compartment.



Installing the Battery

Insert the battery by lining up the contact points on the battery with the contact points in the battery compartment. The included battery lasts up to four hours.

Note: The battery is required to power the DIR-457/DIR-457U myPocket Router in either Wi-Fi router or USB modem mode.



Power Management

Charging with the Power Adapter

To charge the battery insert one end of the USB cable into the USB port of the power adapter and the other end into the Mini-USB port of the DIR-457/DIR-457U myPocket Router, then plug the power adapter into a wall socket. While charging, the Power/3G network LED will flash. When battery power is low, the LED will flash red.



Charging with the USB Cable

To charge the battery insert the USB cable into the Mini-USB port of the DIR-457/DIR-457U myPocket Router and the other end into a free USB port of your computer. While charging, the Power/3G network LED will flash. When battery power is low, the LED will flash red.

Note: Both USB modem mode and Wi-Fi router mode support above two charging methods.

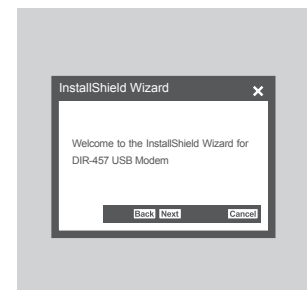
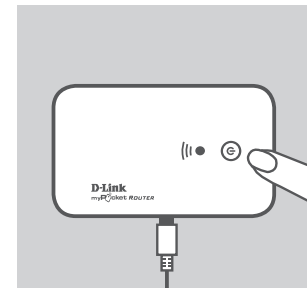
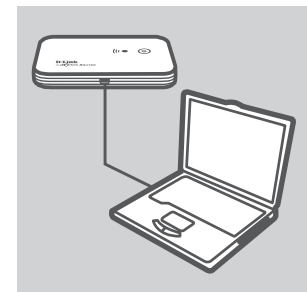
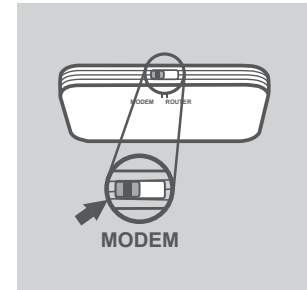


Connection Setup

USB Modem Mode Connection

1. Move the router/modem selection switch to USB modem mode.
2. Connect the DIR-457/DIR-457U myPocket Router to your computer with the included USB cable. To do this, insert the USB cable into the Mini-USB port of the DIR-457/DIR-457U myPocket Router and the other end into a free USB port of your computer.
3. Press the power button on the DIR-457/DIR-457U.
4. The Connection Manager software will automatically start up.
5. Configure your router/modem settings using the Connection Manager.
6. You can now use the DIR-457/DIR-457U myPocket Router as a USB modem.

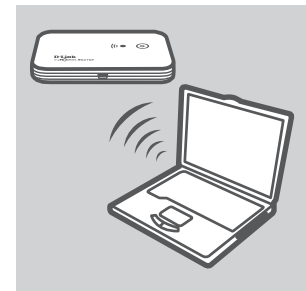
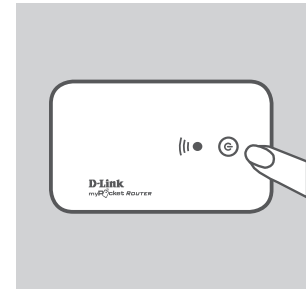
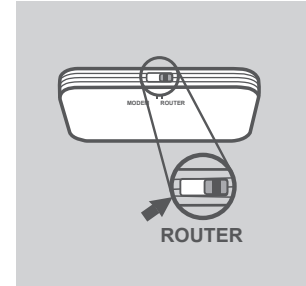
Note: You have to install the Connection Manager software when using the DIR-457/DIR-457U for the first time. After successful installation, you can configure USB modem and Wi-Fi router basic settings. When the DIR-457/DIR-457U is used in USB modem mode, you can manage your 3G connection using the D-Link Mobile Connection Manager (please refer to session 2 - Managing 3G connection).



Connection Setup

Wi-Fi Router Mode

1. Move the router/modem selection switch to Wi-Fi router mode.
2. Press the power button on the DIR-457/DIR-457U.
3. You can now use the DIR-457/DIR-457U myPocket Router as a wireless access point and connect to the router with any Wi-Fi capable devices.



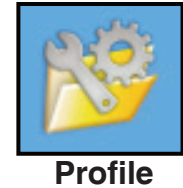
Modem Setup using D-Link Mobile Connection

The DIR-457/DIR-457U provides a convenient tool for device setup. For changing settings, just choose the D-Link Mobile Connection Manager. The D-Link Mobile Connection Manager offers an easy and simple way, and allows for all 3G settings to be adjusted. The following instructions will show you how to configure the 3G connection.

Note: These settings will only take effect when you use the DIR-457/DIR-457U as a 3G USB modem. To work as a 3G USB Modem, you have to connect your device to the PC with a USB cable and make sure that the hardware switch is in modem position.

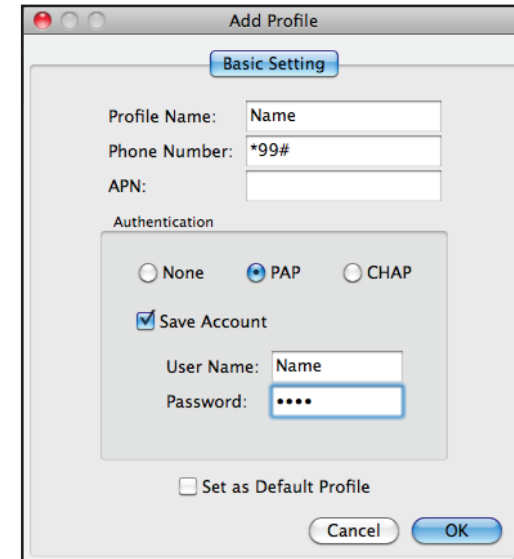
New Profile

1. Click the **Profile** button.
2. Click the **New** button to open the New Profile window.



Create Profile

1. Enter the Profile Name, Phone Number, and APN (Access Point Network)
2. Select the Authentication Type.
3. Click **Save Account** if you would like to save the username and password between login sessions.
4. If desired, click the check box to set this as the default profile.
5. Click **Next** to continue.

A screenshot of a software window titled "Add Profile". Inside the window, there is a tab labeled "Basic Setting". Below the tab, there are three text input fields: "Profile Name:" with the text "Name", "Phone Number:" with the text "*99#", and "APN:". Below these fields is a section titled "Authentication" containing three radio buttons: "None", "PAP" (which is selected), and "CHAP". Below the radio buttons is a checked checkbox labeled "Save Account". Under this checkbox are two more text input fields: "User Name:" with the text "Name" and "Password:" with four dots. At the bottom of the window, there is a checkbox labeled "Set as Default Profile" which is unchecked, and two buttons: "Cancel" and "OK".

Establishing a Connection

You can click the Connect button to connect to the network via the default profile. Once connected, the icon on the right side of the window will display a green checkmark instead of a red X. Once connected, you can use the mobile service network to browse the Internet, send e-mail, send text messages, and perform other tasks online.



Connect

Note: The Connect/Disconnect button will be grayed-out when no SIM card is present.



Ending a Connection

If you wish to disconnect, click the **Disconnect** button.

Disconnect

Profile Management

Under the Profiles icon, users can create, edit and delete profiles as well as preset profiles.

Editing a Profile

1. Click the **Profile** button.
2. Select a profile and click the **Edit** button.
3. Click the appropriate tab and enter the information in the fields.
4. Click **OK** to close the Edit Profile window.



Profile

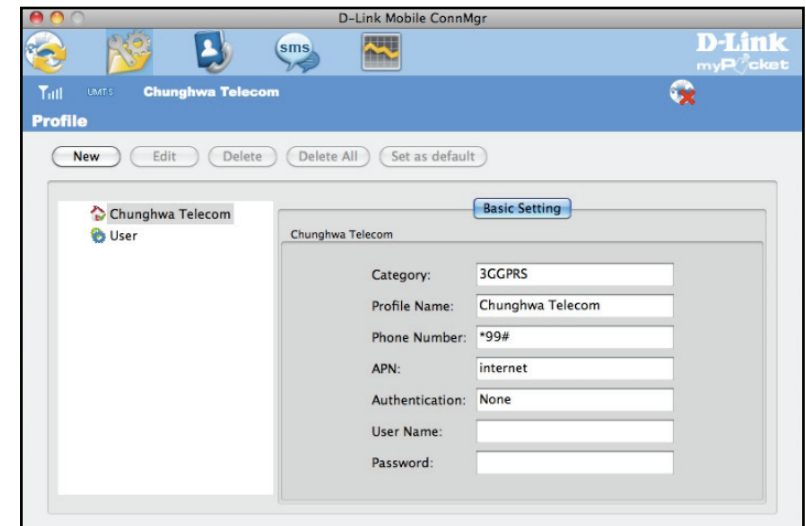
Note: Profiles may only be edited when you are disconnected.

Deleting a Profile

1. Click the **Profile** button.
2. Select a user-defined profile and click the **Delete** button.
3. Click **Yes** to confirm the deletion.

Setting the Default Profile

1. Click the **Profile** button.
2. Highlight the profile to use when the DIR457/DIR-457U is started.
3. Click **Set as Default** profile.



Connection Management

The Connection Information window allows users to manage not only the current connection (if connected), but also their connection history. Click the Connection Info button to open the Connection Information window.

Current Connection

The Current Connection tab displays the following information:

Profile Name - Displays the current profile.

Connection Type - Displays the mobile service technology that the service network uses.

Connected Time - Displays how long the current session has been active for.

Volume - Displays the total amount of data received (Rx) and transmitted (Tx).

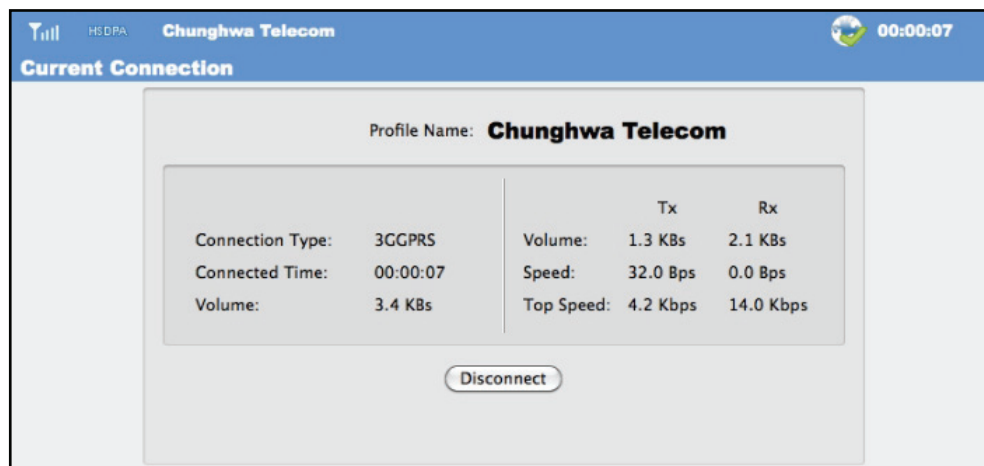
Speed - Displays the speeds for both transmitted and received data.

Top Speed - Displays the maximum transmitted and received speeds attained.

Disconnect - Click this button to disconnect.



**Connection
Information**



Connection History

The History Connection tab displays the following information:

Profile - The name of the profile

APN - The access point name

Time Start - The time the connection was initiated

Time End - The time that the connection ended

Data Sent - The total amount of data sent

Data Received - The total amount of data received

Max Speed Up/Down - The highest recorded upload/download speed for the session

Average Speed Up/Down - The average upload/download speed for the session



Usage

To clear the Connection History:

1. Click **Clear All Logs** to clear the logs.
2. Click **Yes** to confirm.

Profile	APN	Time start	Time end	Data sent	Data received	Max speed up/down	Average speed up/down
Chungh...	Internet	2010-01..	2010-01..	3.7 KBs	2.3 KBs	4.2 Kbps/14.0 Kbps	0.4 Kbps/0.2 Kbps
Chungh...	Internet	2010-01..	2010-01..	1.7 KBs	2.4 KBs	9.9 Kbps/19.0 Kbps	0.4 Kbps/0.6 Kbps

Clear all logs

Usage Management

The Usage window allows users to manage not only the current connection (if connected), but also their connection history. Click the Connection Info button to open the Connection Information window.



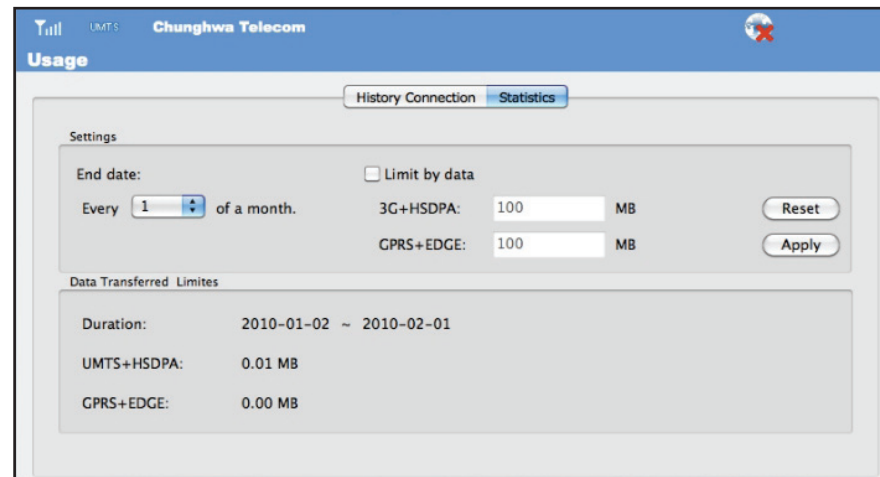
Usage

Statistics

The Statistics tab displays the following information:

Settings - You may choose to limit data collection by data or by a specified number of days in a month. Click **Reset** to restart the data collection. Click **Apply** to apply any changes to the settings.

Data Transferred and Limits: Displays the total amount of data transferred within the specified period.



The screenshot shows the 'Usage' window with the 'Statistics' tab selected. The window title bar includes 'T-Net UMTS' and 'Chunghwa Telecom'. The 'Settings' section has a 'Limit by data' checkbox, an 'End date' field set to 'Every 1 of a month', and input fields for '3G+HSDPA: 100 MB' and 'GPRS+EDGE: 100 MB', with 'Reset' and 'Apply' buttons. The 'Data Transferred Limits' section shows a 'Duration' of '2010-01-02 ~ 2010-02-01' and a table of data transferred:

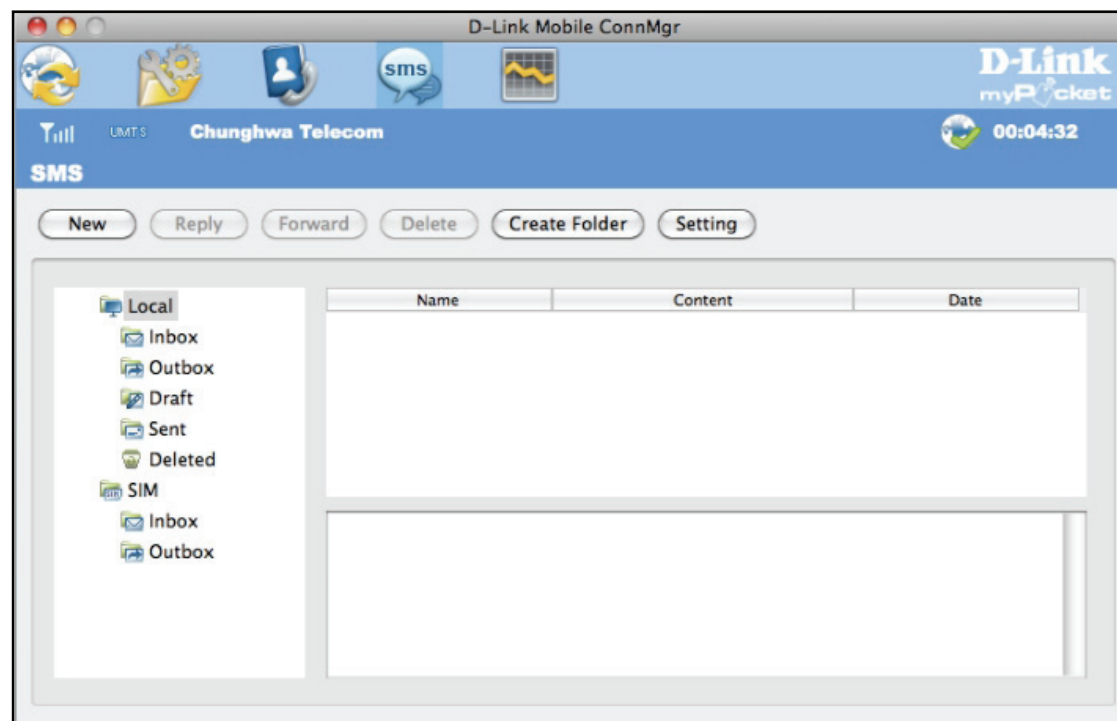
Data Transferred Limits	
Duration:	2010-01-02 ~ 2010-02-01
UMTS+HSDPA:	0.01 MB
GPRS+EDGE:	0.00 MB

Text Messaging (SMS)

The DIR-457/DIR-457U can be used to perform the text messaging functions that can be done on a mobile phone such as sending, receiving, replying, forwarding and deleting.

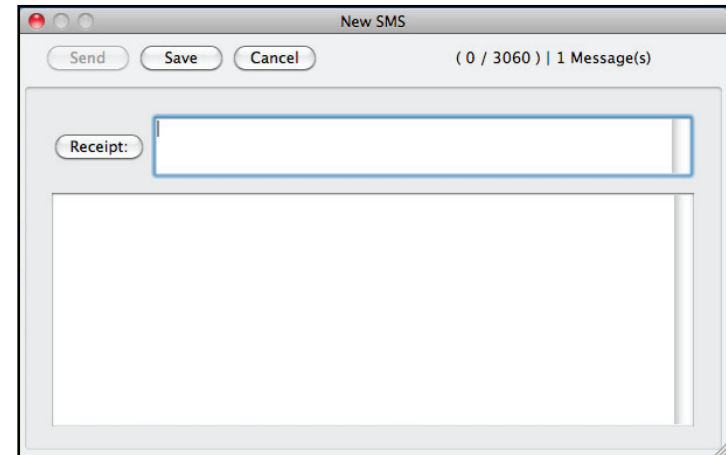


SMS



New/Reply/Forward Text Message

1. Click the **SMS** button.
2. Click **New**, **Reply**, or **Forward**.
3. Enter the recipient's phone number or click **Contacts** to see the contacts stored to the SIM card. In the contacts window, click the box next to the recipients name and click **Save** to return to the New SMS window.
4. Enter a message to send.
5. Click **Send** to send the message.



Deleting a Message

1. Click the **SMS** button.
2. Select the messages you want to delete.
3. Click **Delete** to delete the selected messages.
4. Click **Yes** to confirm.

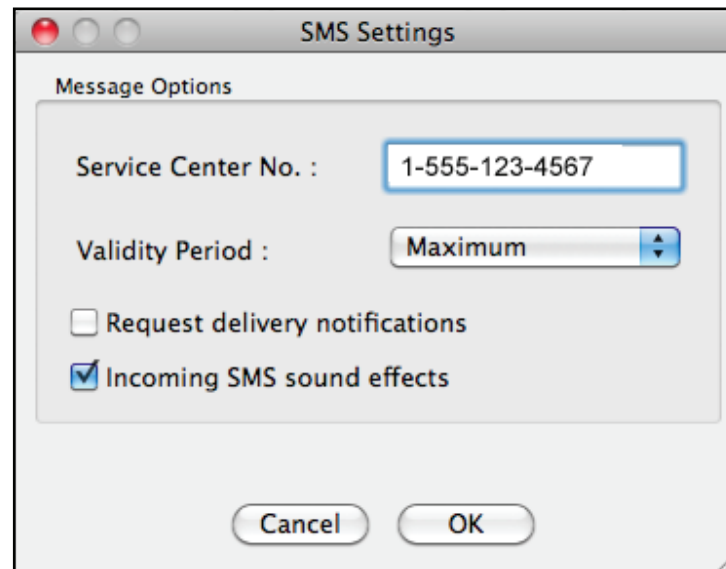
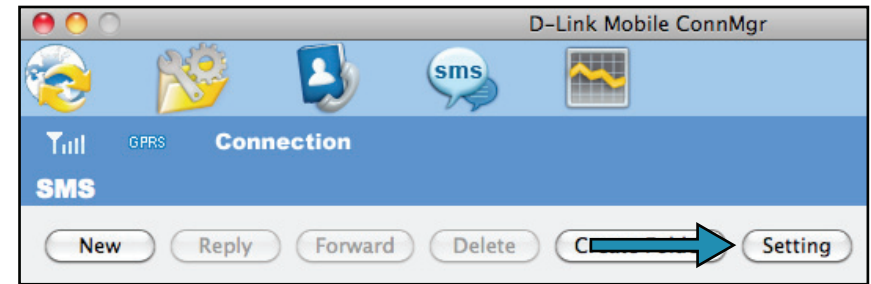
Saving a Sender to Contacts

1. Click the **SMS** button.
2. Select a message.
3. Shift click on the selected message and click **Save as Contact**.
4. In the **Add Contact** window enter the contact name.
5. Click **OK** to save the contact.
6. Once the contact has been saved, a confirmation window will be displayed. Click **OK** to close it.

SMS Settings

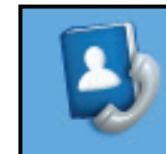
This menu allows you to change the service center number, its validity period, and whether to store outgoing messages within the DIR-457/DIR-457U Mobile Connection Manager.

1. Click **SMS > Settings**.
2. If needed, enter the new Service Center number. Choose a Validity Period from the drop-down list.
3. Check the box to request delivery notifications or play sound effects if desired.
4. Click **OK** to save the details.



Contact Management

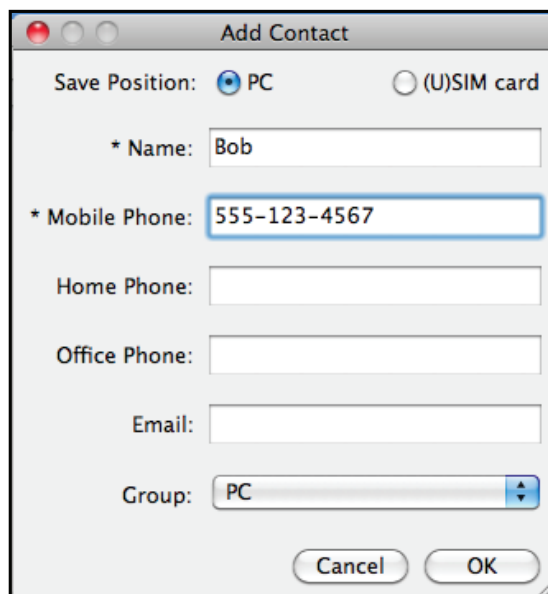
The DIR-457/DIR-457U contacts manager displays all the contacts on the SIM Card. Contacts can be added, edited, deleted and imported.



Contacts

Adding Contacts

1. Click the **Contacts** button.
2. Click the **Add** button.
3. Click **OK** to add the contact.



Add Contact

Save Position: ☒ PC ☐ (U)SIM card

* Name:

* Mobile Phone:

Home Phone:

Office Phone:

Email:

Group:

Editing Contacts

1. Click the **Contacts** button.
2. Select the contact to edit.
3. Click the **Edit** button.
4. Modify the contacts details.
5. Click **OK** to save the changes.

Deleting Contacts

1. Click the **Contacts** button.
2. Select the contact to delete.
3. Click the **Delete** button.
4. Click **Yes** to confirm the deletion.

SIM Management

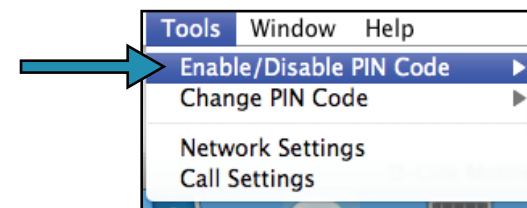
SIM Management includes functions such as enabling/disabling a PIN, changing the PIN1/PIN2 codes, adjusting the phone number, viewing contacts usage, and viewing SMS usage.

Enabling or Disabling a PIN Code

Enable PIN Code

To prevent unauthorized use of the SIM card a PIN code can be enabled.

1. Select **Tools > Enable/Disable PIN code > Enabled**.
2. Enter the correct PIN code to enable.
3. Click **OK** to enable PIN code protection.

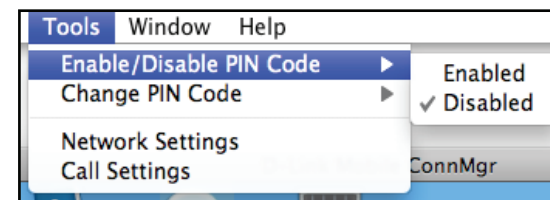


If a PIN number has been enabled, you will always be asked to enter it before accessing the D-Link Mobile Connection Manager software.

Disable

If a PIN code is no longer required, you may disable it via the following steps.

1. Click **Tools > Enable/Disable PIN code > Disabled**.
2. Enter the correct PIN code.
3. Click **OK** to disable the PIN.



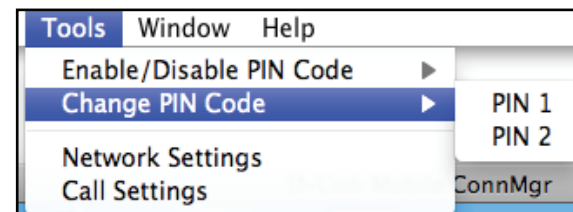
Note: The PIN is provided by your network service provider.

Warning: The PIN code must be entered correctly within three tries. Failure to do so will cause the SIM card to become locked.

Changing a PIN Code

SIM cards often contain two PIN codes that can be changed.

1. Click **Tools > Change PIN Code > PIN1 or PIN2**.
2. Enter the details in the following fields: Current PIN Code, Enter New PIN Code and Confirm New PIN Code.
3. Click **OK** to change.
4. Once complete, a confirmation window will be displayed. Click **OK** to close the window.



Warning: The PIN code must be entered correctly within three tries. Failure to do so will cause the SIM card to become locked.

Note: The PIN codes cannot be changed while the DIR-457/DIR-457U is connected to a mobile network.

Unlocking a PIN Code

If the PIN code has been entered incorrectly three times and the SIM card has been locked, follow the steps below to unlock it:

1. If a PIN is blocked, the unblock window will be displayed.
2. Enter the PUK code. Enter the new PIN Code, and confirm the new code.
3. Click **OK** to confirm the new PIN code.

Note: The PUK number is provided by your mobile service provider.

Profile Settings

The Profile Settings page allows you to manually change your Band and Network setting in case your DIR-457/DIR-457U can not automatically connect to your network provider.

Band Settings

The DIR-457/DIR-457U supports two band selection options:

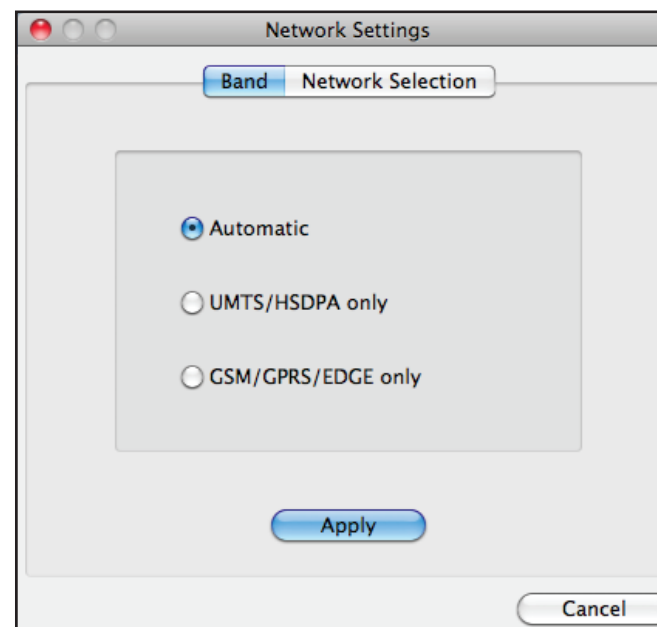
Automatic - The DIR-457/DIR-457U automatically selects the band based on the networks available in current area and those supported by the DIR-457/DIR-457U.

UMTS/HSDPA Only - Restricts the DIR-457/DIR-457U to using 3G service on UMTS/HSDPA bands.

GSM/GPRS/EDGE Only - Restricts the DIR-457/DIR-457U to using 2G service on GSM/GPRS/EDGE bands.

To adjust the band settings follow the instructions below:

1. Click the **Profile** button.
2. Select **Band** tab.
3. Select Automatic, UMTS/HSDPA only, or GSM/GPRS/EDGE only.
4. Click **Apply** and **OK**.



Network Selection

The current location of the DIR-457/DIR-457U may be covered by more than one network. The DWM-156 supports two network selection options:

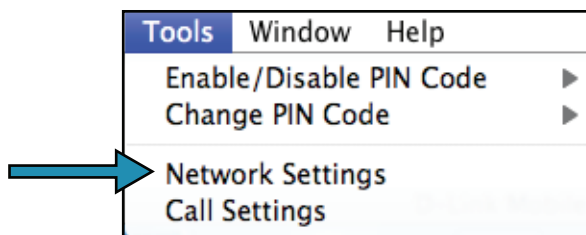
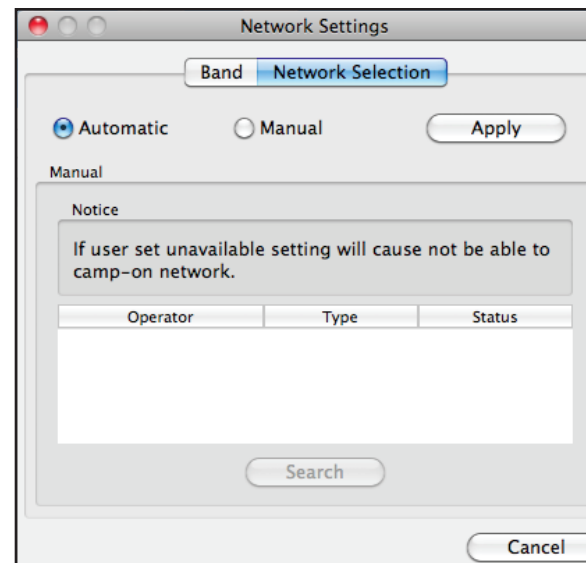
Automatic - By default the DIR-457/DIR-457U will automatically select the network based on the user account and network availability.

Manual - You may choose from the list of operators.

To manually set the network, follow the steps below:

1. Click on the **Tools** menu.
2. Click on **Network Settings**.
3. Select **Manual**.
4. Click **Search** to see all available networks.
5. Select a network operator and click **Apply**.
6. Click **OK** to finish.

Note: When the band is set to **UMTS/HSUPA Only**, manual selection will only list 3G networks.



Call Settings

Select **Tools > Call Setting**.

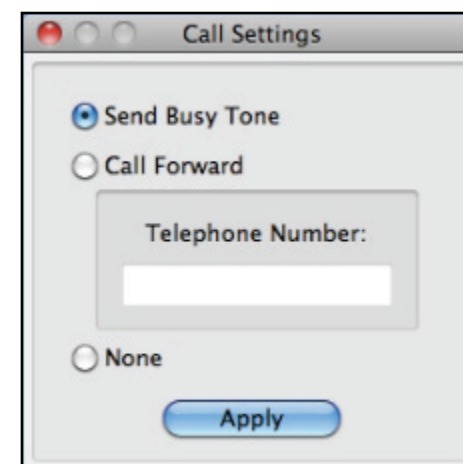
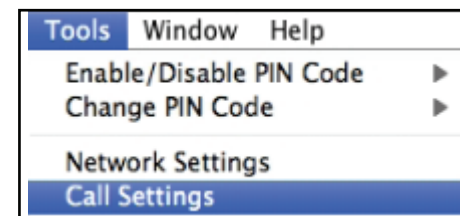
You may select from one of the following options:

None - No answer.

Send Busy Tone - The caller will hear a busy tone, or will be transferred to voice mail.

Call Forward - The incoming call will be forwarded to the phone number you enter into the **Telephone Number** text box.

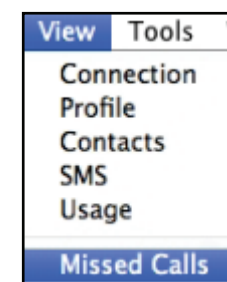
Note: The call settings query may fail if the network is busy; in this case please try again later.



Missed Calls

1. Select **View > Missed Calls**.

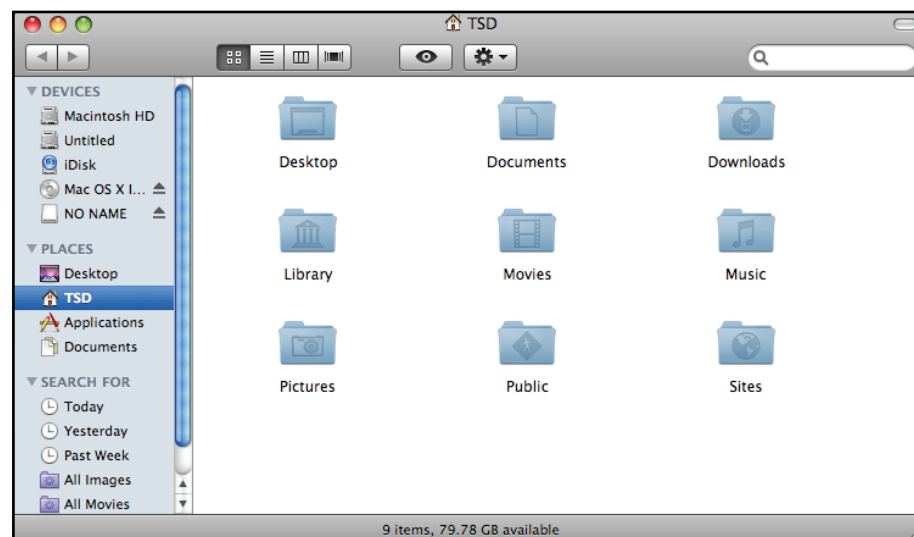
2. If the call setting is None or Send Busy Tone, D-Link Mobile Connection Manager AP will register the incoming call in the missed calls list.



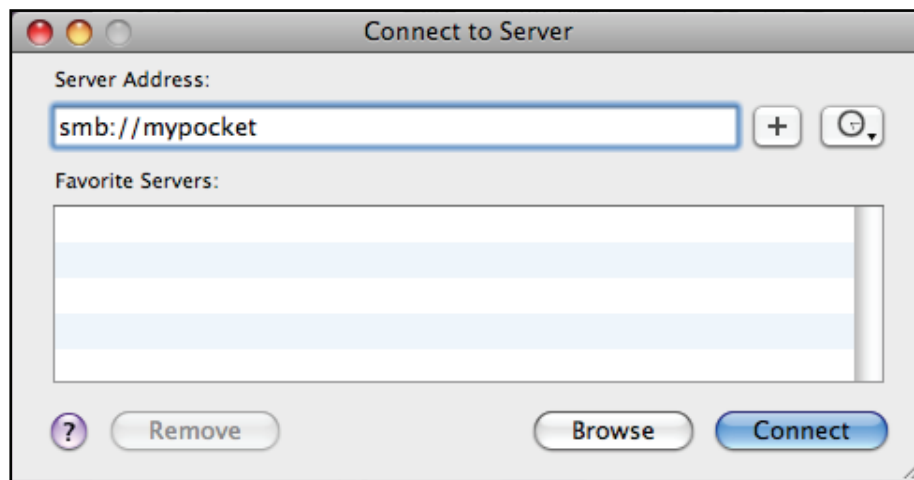
File Sharing

For accessing the shared folder in the router using Mac OS X, follow these steps to read or write the shared files.

Step 1 Open the **Finder** window.



Step 2 To bring up a server connection window, hit the **[Apple] key** and the **[K] key** together. You will then be prompted to enter a server address. Enter **smb://mypocket** (or smb://192.168.0.1) and click **Connect**.

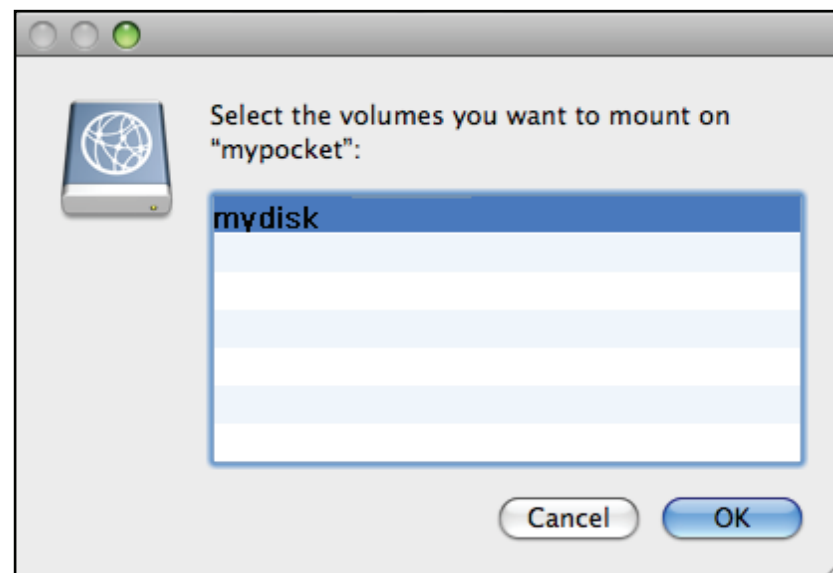


Step 3

Next, you will be prompted for the username and password. You can keep the password field blank to log in.

**Step 4**

You will be prompted: "Select the volumes you want to mount on 'mypocket'" Select **mydisk**, and then click **OK**.



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-457/DIR-457U. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screen shots on your computer will look similar to the following examples.) Please refer to the Quick Installation Troubleshooting section.

Wireless Basics

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Strictly adhering to the IEEE standard, the D-Link wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Router is a device used to provide this link.

What is Wireless?

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

Why D-Link Wireless?

D-Link is the worldwide leader and award winning designer, developer, and manufacturer of networking products. D-Link delivers the performance you need at a price you can afford. D-Link has all the products you need to build your network.

How does wireless work?

Wireless works similar to how cordless phone work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN).

Wireless Local Area Network (WLAN)

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

Wireless Personal Area Network (WPAN)

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away.

Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

Who uses wireless?

Wireless technology has become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

Home

- Gives everyone at home broadband access
- Surf the web, check e-mail, instant message, and etc
- Gets rid of the cables around the house
- Simple and easy to use

Small Office and Home Office

- Stay on top of everything at home as you would at office
- Remotely access your office network from home
- Share Internet connection and printer with multiple computers
- No need to dedicate office space

Where is wireless used?

Wireless technology is expanding everywhere not just at home or office. People like the freedom of mobility and it's becoming so popular that more and more public facilities now provide wireless access to attract people. The wireless connection in public places is usually called "hotspots".

Using a D-Link Cardbus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

Wireless network is easy to setup, but if you're installing it for the first time it could be quite a task not knowing where to start. That's why we've put together a few setup steps and tips to help you through the process of setting up a wireless network.

Tips

Here are a few things to keep in mind, when you install a wireless network.

Centralize your router or Access Point

Make sure you place the router/access point in a centralized location within your network for the best performance. Try to place the router/access point as high as possible in the room, so the signal gets dispersed throughout your home. If you have a two-story home, you may need a repeater to boost the signal to extend the range.

Eliminate Interference

Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the router/access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency.

Security

Don't let your next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

Networking Basics

Check your IP address

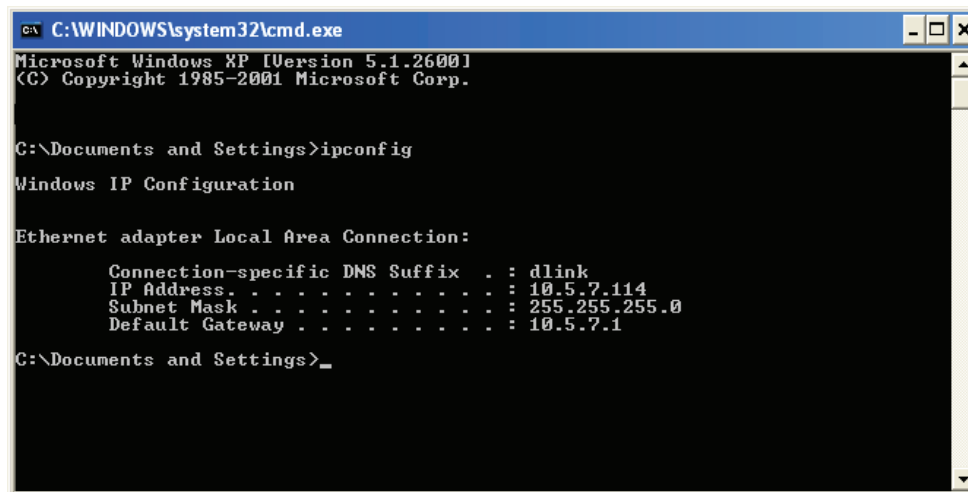
After you install your adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start > Run**. In the run box type *cmd* and click **OK**. (Windows Vista® users type *cmd* in the **Start Search** box.)

At the prompt, type *ipconfig* and press **Enter**.

This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600.1]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : dlink
    IP Address. . . . . : 10.5.7.114
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

Statically Assign an IP address

If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

Step 1

Windows Vista® - Click on **Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections**.

Windows® XP - Click on **Start > Control Panel > Network Connections**.

Windows® 2000 - From the desktop, right-click **My Network Places > Properties**.

Step 2

Right-click on the **Local Area Connection** which represents your network adapter and select **Properties**.

Step 3

Highlight **Internet Protocol (TCP/IP)** and click **Properties**.

Step 4

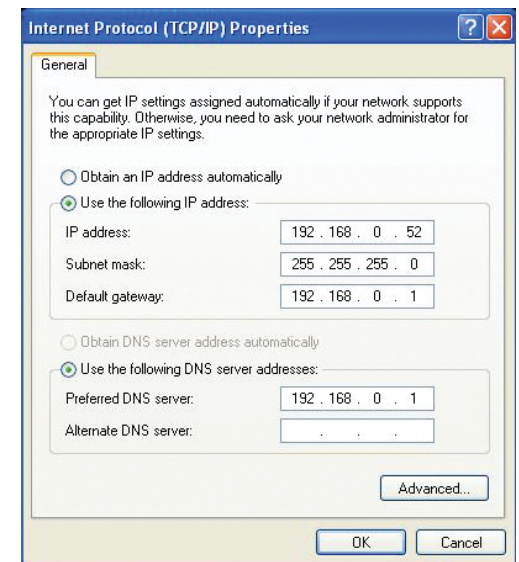
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

Step 5

Click **OK** twice to save your settings.



Technical Specifications

Standards

- IEEE 802.11b/g
- IEEE 802.3
- IEEE 802.3u

Security

- WEP (64/128 bit)
- WPA-PSK/WPA2-PSK
- WPS (PIN/PBC)

Wireless Signal Rates*

- 54Mbps • 48Mbps
- 36Mbps • 24Mbps
- 18Mbps • 12Mbps
- 11Mbps • 9Mbps
- 6Mbps • 5.5Mbps
- 2Mbps

Frequency Range

- 2.4GHz to 2.483GHz

Output Power

- 802.11b (17dBm)
- 802.11g (14dBm)

Sensitivity

- 802.11b (-86dBm) at 11Mbps
- 802.11g (-72dBm) at 54Mbps

HSDPA Module (DIR-457)

- Throughput: DL up to 3.6 Mbps UL up to 384Kbps

HSUPA Module (DIR-457U)

- Throughput: DL up to 7.2 Mbps UL up to 5.76 Mbps

LEDs

- Power Status
- Signal Status

Power Adapter

- DC 5V/1A

Power Consumption

- 2.5 Watts

Battery

- Voltage (3.7V)
- Capacity (1330mAh)
- Dimension (52mm x 37mm x 6.7mm)

SIM Card Slot

- Push-Push

Operating Temperature

- 32°F to 104°F (0°C to 40°C)

Operating Humidity

- 10%-90% non-condensing

Safety & Emissions

- FCC Class B
- CE Class B
- NCC
- GOST

Dimensions

- 110mm x 65mm x 13.6mm

Weight

- 75g (without battery)

Warranty

- 1 Year Limited

* Maximum wireless signal rate derived from IEEE Standard 802.11g and 802.11b specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Mark Warning:

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

NCC Statement:

「減少電磁波影響，請妥適使用」

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。